

*Coprosma parviflora*, which **does** grow here despite not being located on this occasion, could be the most southerly population of this plant, which is usually reported as growing from North Cape to near Dargaville. On an ABS trip to Poutu in May 1991, *C. parviflora* was recorded as being present in Tapu Bush. While Poutu is directly across the harbour as the seagull flies, Tapu Bush is somewhat to the north.

## Field Trip to Waipoua Forest and Tutamoe Easter 1997

Maureen Young, Shirley Smith, Steve Benham & Alison Wesley

### Introduction

Maureen Young

The hall at the Waipoua Forest Headquarters, with its well equipped kitchen, proved to be a very comfortable base for the 9 ABS members who attended this field trip. Our thanks go to Lisa Forester of the Northland Conservancy of DoC for arranging permits and for sharing her knowledge of the botanical highlights of the area. Local farmers Peter Kelly and Bob Steed and their families, were generous with their 4WD vehicles, their keys to forestry gates and their company.

### Friday 28 March

Shirley Smith

On Good Friday we drove to the northern end of Waipoua Forest from our accommodation at the Forest HQ. We entered an area which I would have dismissed as just early regeneration and not yet interesting for botanists. To my surprise Maureen was charging off through the undergrowth only 3 minutes from the carpark. Members were armed with well prepared equipment - a gasp, and almost in unison - out came their magnifying glasses, pads and pencils as they crowded around an innocent little plant. The excitement was infectious, for I found myself following, trying to catch phrases describing the ferns and other plants. Walking down the old access road to the area of the Four Sisters and Te Matua Ngahere, it was easier for me to absorb information because we were now discussing trees! Te Matua Ngahere always impresses, so we lingered there and agreed that it even surpasses Tane Mahuta in splendour. Tell me, how could an *Alseuosmia* possibly produce such long, slender leaves as the ones we saw there beside the track? Hence we all learned of the variable habits of these plants.

On to the Yakas track, walking amongst even more lush forest. We had lunch looking out onto the Cathedral Grove. After encircling the Yakas kauri we left the ease of the boardwalk and found ourselves charging through wet mud with the occasional root to trip us up. Sneakers were all that were needed, Maureen had assured us! The mud made botanising difficult until we noticed the *Manoao colensoi* close to a dry ridge. Here also, we finally found the tiny *Hymenophyllum armstrongii* growing with moss on a tree trunk, and the gumland plants *Lycopodium laterale* and *Epacris pauciflora*.

### Saturday 29 March

Steve Benham

The Tutamoe Range rises on the east side of the upper valley of the Kaihu River and trends north-westwards from Hobson County across into Hokianga County, to join the hills south-east of the Hokianga Harbour. The range lies within the Western Northland Ecological Region and constitutes the largest remaining tract of indigenous forest north of Auckland.

Tutamoe is a unique and remarkable area. This relatively un-modified old forest has a high degree of biodiversity and appears to share the many affinities that one associates with the equatorial montane tropical rainforests.

There were large numbers of species with specialised growth forms. The impressive species list of 133 vascular plant taxa of which there were 48 fern taxa identified (M. Young pers.

comm.) on either side of the narrow forest track leading to the summit was a testament to this rich biodiversity. Filmy ferns were so abundant (11 *Hymenophyllum* spp.) and lush in this humid, moist and shaded environment.

In order to reach this rich and fragile area one had to travel through many kilometres of the all too familiar degraded environment viz. roadsides and tracks choked with weed species, open pastures bereft of any native plants and exotic monocultured pine plantations marching up and over hillsides almost devoid of any other living organism. The human impact upon New Zealand's natural biosystems has been catastrophic.

As we emerged from the forestry into an open corridor with a broad grassy incline and yet more plantation forestry on the right and regenerating bush on our left our interest was captured by the prolific regeneration of makamaka (*Ackama rosifolia*) amongst the rank adventive grasses. A grand panoramic view of the old forest canopy and summit of Tutamoe came into sight as we conquered a few more contours!

The climax species of this indigenous forest include towai (*Weinmannia silvicola*), mangeao (*Litsea calicaris*), pukatea (*Laurelia novae-zelandiae*) ascribed to the families Cunoniaceae, Lauraceae and Monimiaceae respectively.

At c.300 m asl. the transition from this species depauperate area into this relatively unmodified forest was a most thrilling and an almost spiritual experience. For one accustomed to the dry temperate forests of northern Europe the privilege of being able to botanise in these unique conifer broadleaf forests so abundant in highly specialised growth forms is an opportunity never to be missed.

Particular areas through which the narrow path cut, appeared to be characterized by a proliferation of particular growth forms. One such area was filled with the wonderfully drooping stems and foliage of kiekie (*Freycinetia banksii*) completely obscuring all other signs of growth. Shafts of sunlight bounced off its lustrous foliage. The other root climbing canopy liane was the large leaved and white flowering *Metrosideros albiflora*. The presence of *Ripogonum scandens* was indicative of the swampy nature of this area. Subcanopy climbers consisted wholly of ferns - *Rumohra adiantiformis* and *Anarthropteris lanceolata* were two of many that I jotted down. Nest epiphytes were and always are a delight and at this altitude the familiar *Collospermum hastatum* had been replaced by the narrower leaved *Collospermum microspermum*.

For myself the two genera of pendent epiphytes to capture my attention was the "living fossil" viz. *Tmesipteris* spp. a taxon that botanists travel the lengths of the world to study and the deliciously spicy scented *Earina autumnalis*. The two widespread species viz. *T. elongata* and *T. tannensis* were present, the former having longer and more tapering leaves and round ended sporangia whereas *T. tannensis* has truncate leaves with long spiny tips and pointed sporangia.

Terrestrial ferns luxuriated with the caudex of some *Blechnum discolor* reaching 90 cm in height. Is this taxon on its evolutionary path to becoming a tree fern? The unmistakable *Blechnum nigrum* with the diagnostic broad terminal pinna of the sterile fronds was sparsely represented and occurred in the darkest of shade. The diminutive *Libertia pulchella* must surely rank as one of the smallest within the genus and was found growing on moss covered rocks and trees that had fallen - a most unlikely preference for a fan-leaved monocot belonging to Iridaceae ?

Several small specimens of *Ascarina lucida* occurred near the track and towards the summit. This primitive taxon has a direct link with the earliest known fossil Angiosperm and hence is often described as one of the planet's primary angiosperms.

Sumptuous clumps of *Astelia* aff. *grandis* punctuated the surrounds of the summit (770 m asl.). The lower leaf surfaces (abaxial) were covered in a dense ferruginous indumentum. Other taxa included the appealing raukawa (*Pseudopanax edgerleyi*) with its palmately

compound juvenile leaves with up to five deeply lobed leaflets, *Griselinia littoralis*, *Dracophyllum traversii*, and *Gahnia setifolia*.

If you ever have the opportunity of a visit to Tutamoe your efforts will be more than rewarded. My sincere thanks to Maureen Young who made it all possible.

NB: There was evidence of feral goat (*Capra hircus*) browsing on and around the summit and we therefore urge the land managers of Tutamoe to urgently remove them from this fragile ecosystem.

### Sunday 30 March

Alison Wesley

The group travelled south from Waipoua to the Opouteke Road, past the Kauri Coast Motor Camp, over gravel roads which progressively became rougher, finally being stopped by a ford over a tributary of the Opouteke Stream. From here we walked along a forestry road into the pine forest. After cutting through some of this forest we descended down to a stream which we named "Lisa's lava stream", and along which we botanised for the next three or four hours. This included rock hopping, wading, and climbing up steep slopes whenever the stream disappeared down falls and through steep gorges. Paul proved an excellent scout and guide. Among the botanical highlights was *Hymenophyllum atrovirens* growing on rock of lava pillars where the stream formed a waterfall into a deep pool, and first discovered by Graeme. In the same area, but higher on the rocks, was also found *H. flexuosum*. Enid provided much excitement with the discovery of *Gunnera monoica*. On a small island in the stream *Viola filicaulis*, an uncommon plant in Northland, was discovered by Maureen. The whole day was voted a huge success.

### Monday 31 March - Maureen Young

People set off for home via various routes, but some stopped at the Kai Iwi Lakes and walked the shorelines for an hour or two. These lakes certainly test one's knowledge of monocotyledons. One monocot. which was flowering prolifically, but whose modest beauty was only appreciated with the aid of a magnifying glass, was the tiny orchid *Genoplesium pumilum* (*Prasophyllum pumilum*). Also with occasional flowers wide open, and signalling its membership of the Scrophulariaceae, were a few tiny plants of *Gratiola sexdentata*. As always, it was pleasing to note the prostrate plants of the Northland endemic, *Pomaderris prunifolia* var. *edgerleyi*.

With thoughts of the Easter traffic still to be faced, an early departure was deemed prudent.

Participants:	Enid & Paul Asquith	Gordon Perry
	Steve Benham	Shirley Smith
	Graeme Hambly	Alison Wesley
	Frank Hudson	Maureen Young

### Appendix: Indigenous vascular flora of three sites visited during the Easter trip based at Waipoua Forest

Lists compiled by ABS members for the track to Te Matua Ngahere then via the Yakas Kauri down to the Waipoua HQ (Yakas), on the walkway to the summit of Tutamoe, and down the tributary of the Opouteke stream at NZMS 260 PO7/790080.

Ferns	Yakas	Tutamoe	Opouteke
<i>Adiantum cunninghamii</i>			*
<i>Anarthropteris lanceolata</i>	*	*	*
<i>Asplenium bulbiferum</i>	*	*	*
<i>A. flaccidum</i>		*	*
<i>A. oblongifolium</i>	*	*	*
<i>A. polyodon</i>	*	*	*
<i>Blechnum</i> "black spot"	*	*	*
<i>B. chambersii</i>		*	*
<i>B. discolor</i>	*	*	
<i>B. filiforme</i>	*		*

	Yakas	Tutamoe	Opouteke
B. fluviatile		*	
B. fraseri	*	*	
B. nigrum		*	
B. procerum		*	
Ctenopteris heterophylla	*	*	*
Cyathea dealbata	*	*	
C. medullaris	*	*	*
C. smithii	*	*	*
Deparia petersenii			*
Dicksonia lanata	*	*	
D. squarrosa	*	*	*
Diplazium australe			*
Doodia media			*
Gleichenia dicarpa	*		
Grammitis billardierei		*	
G. pseudociliata	*	*	
Histiopteris incisa		*	
Hymenophyllum armstrongii	*		
H. atrovirens			*
H. demissum	*	*	*
H. dilatatum	*	*	*
H. ferruginium	*	*	*
H. flabellatum	*	*	*
H. flexuosum	*	*	*
H. lyallii		*	
H. multifidum	*	*	*
H. rarum	*	*	
H. revolutum	*	*	*
H. sanguinolentum	*	*	*
H. scabrum	*	*	*
Lastreopsis glabella			*
L. hispida	*	*	*
Leptopteris hymenophylloides			*
Lindsaea trichomanoides	*	*	
Lycopodium deuterodensum	*		
L. laterale	*		
L. varium	*		*
L. volubile	*	*	*
Lygodium articulatum	*	*	*
Paesia seaberula	*	*	*
Phymatosorus pustulatus	*	*	*
P. scandens	*		*
Pneumatopteris pennigera	*		*
Pteridium esculentum	*	*	*
Pteris tremula	*		
Rumohra adiantiformis	*	*	*
Schizaea fistulosa	*		
Sticherus cunninghamii		*	
Tmesipteris elongata	*	*	*
T. lanceolata	*		
T. sigmatifolia	*		
T. tannensis	*	*	
Trichomanes elongatum	*	*	
T. endlicherianum			*
T. reniforme	*	*	*
T. stricta	*	*	
T. venosum	*	*	*
<b>Gymnosperms</b>			
Agathis australis	*	*	
Dacrycarpus dacrydioides	*	*	*
Dacrydium cupressinum	*	*	
Halocarpus kirkii	*		
Manoao colensoi	*		
Libocedrus plumosa	*		
Phyllocladus trichomanoides	*	*	
Podocarpus hallii	*	*	
P. totara	*	*	
Prumnopitys ferruginea	*	*	*
P. taxifolia	*		
<b>Dicotyledons</b>			
Acaena novae-zelandiae	*	*	

	Yakas	Tutamoe	Opouteke
Ackama rosifolia	*	*	*
Alseuosmia banksii	*		
A. macrophylla	*	*	
A. x quercifolia	*		
Aristotelia serrata	*	*	*
Ascarina lucida		*	*
Beilsehmiedia tarairi	*	*	*
B. tawa	*	*	*
Brachyglottis kirkii	*		
B. repanda	*		*
Callitriche muelleri	*		*
Carpodetus serratus	*	*	
Centella uniflora	*		*
Clematis cunninghamii	*		
C. paniculata	*	*	*
Coprosma arborea	*	*	
C. grandifolia	*	*	*
C. lucida	*	*	
C. rhamnoides			*
C. robusta	*		*
Coriaria arborea	*		*
Corynocarpus laevigatus	*		
Dracophyllum latifolium	*	*	
D. lessonianum	*		
D. traversii		*	
Dysoxylum spectabile	*		
Elaeocarpus dentatus	*	*	*
Elatostema rugosum			*
Epacris pauciflora	*		
Epilobium sp.			*
Fuchsia excorticata			*
Gaultheria antipoda	*		
Geniostoma rupestre	*		*
Gonocarpus incanus	*		
Griselinia littoralis		*	
G. lucida	*	*	*
Gunnera monoica			*
Hedycarya arborea	*	*	*
Hoheria populnea	*		
Hydrocotyle dissecta			*
H. novaezelandiae			*
Ixerba brexioides	*	*	
Knightia excelsa	*	*	*
Kunzea ericoides	*		
Laurelia novae-zelandiae	*	*	*
Leptospermum scoparium	*		
Leucopogon fasciculatus	*	*	
Litsea calicaris	*	*	*
Lophomyrtus bullata	*		
Macropiper excelsum	*		
Melicope simplex	*		
Melicytus macrophyllus	*	*	*
M. micranthus	*		
M. ramiflorus		*	*
Metrosideros albiflora	*	*	*
M. diffusa	*	*	*
M. fulgens	*	*	*
M. perforata	*	*	*
M. robusta	*	*	
Mida salicifolia	*	*	
Muehlenbeckia australis			*
Myrsine australis	*	*	
M. salicina	*	*	
Nertera depressa	*	*	*
N. dichondrifolia	*	*	
Nestegis cunninghamii	*		
N. lanceolata	*	*	
N. montana	*	*	
Olearia rani	*	*	
Parsonia sp.	*	*	
Phebalium nudum	*		
Pittosporum cornifolium	*		
P. tenuifolium	*		

	Yakas	Tutamoe	Opouteke
<i>Pseudopanax anomalus</i>	*	*	
<i>P. arboreus</i>	*	*	
<i>P. crassifolius</i>	*	*	
<i>P. edgerleyi</i>	*	*	
<i>Pseudowintera axillaris</i>	*	*	
<i>Quintinia serrata</i>	*	*	
<i>Ranunculus reflexus</i>	*		*
<i>Rhabdothamnus solandri</i>	*		*
<i>Rubus australis</i>	*	*	
<i>R. cissoides</i>	*	*	
<i>Schefflera digitata</i>	*	*	*
<i>Streblus heterophyllus</i>	*		
<i>Syzygium maire</i>	*	*	
<i>Toronia toru</i>	*		
<i>Viola filicaulis</i>	*		*
<i>Vitex lucens</i>	*		
<i>Weinmannia silvicola</i>	*	*	*
<b>Monocotyledons</b>			
<i>Acianthus sinclairii</i>	*	*	
<i>Astelia grandis</i>		?	
<i>A. solandri</i>	*	*	*
<i>A. trinervia</i>	*	*	
<i>Baumea teretifolia</i>	*		
<i>Bulbophyllum pygmaeum</i>	*		
<i>Carex</i> sp.		*	*
<i>C. lessoniana</i>			*
<i>Collospermum hastatum</i>	*	*	*
<i>C. microspermum</i>	*	*	
<i>Cordyline australis</i>	*	*	
<i>C. banksii</i>			*
<i>C. pumilio</i>		*	
<i>Cortaderia</i> sp.		*	
<i>Corybas acuminatus</i>	*		
<i>C. oblongus</i>		*	
<i>C. rivularis</i>			*
<i>Dendrobium cunninghamii</i>	*	*	*
<i>Dianella nigra</i>	*	*	*
<i>Drymoanthus adversus</i>	*		
<i>Earina autumnalis</i>	*	*	*
<i>E. mucronata</i>	*	*	*
<i>Freycinetia banksii</i>	*	*	*
<i>Gahnia setifolia</i>	*	*	*
<i>G. xanthocarpa</i>	*	*	
<i>Isolepis reticularis</i>	*	*	
<i>Juncus pallidus</i>		*	
<i>Libertia pulchella</i>	*	*	
<i>Microlaena avenacea</i>	*	*	*
<i>M. stipoides</i>		*	*
<i>Oplismenus imbecillis</i>	*		*
<i>Phormium tenax</i>		*	
<i>Pterostylis brumalis</i>	*		
<i>Rhopalostylis sapida</i>	*	*	*
<i>Ripogonum scandens</i>	*	*	*
<i>Schoenus maschalinus</i>	*		
<i>Thelymitra</i> sp.		*	
<i>Uncinia banksii</i>	*		
<i>U. uncinata</i>	*	*	*
<i>U. zotovii</i>	*	*	

*Astelia grandis* on Tutamoe needs to be checked, as a 1984 NZ Forest Service report on the Kaihu Ecological Area (L. Forester & D. Cummings) gives *Astelia* cf. *fragrans* & *A.* cf. *nervosa* as being present.